Amendments to the Specification:

Replace paragraph [0023] with the following paragraph:

The hydraulic system 30 controls three separate machine functions 40, 41 and 42 which respectively change the boom lift angle θ, the boom length L, and load carrier tilt angle Ø. The boom angle function 40 pivots the boom 13 with respect to the chassis 12 by operating the lift cylinder 16 that includes a piston 44 to which a rod 45 is connected. The piston 44 divides the lift cylinder 16 into a rod chamber 46 and a head chamber 47. A first valve assembly 48, comprising four proportional electrohydraulic valves 51, 52, 53 and 54, couples the rod and head chambers 46 and 47 to the supply and return lines 36 and 38 in a standard bridge configuration. Each electrohydraulic valve 51-54 may be pilot operated by a solenoid, such as the valve described in U.S. Patent No. 6,328,275, for example. The magnitude of electric current applied to a particular valve 51-54 determines the displacement of a valve element and thus the flow rate of hydraulic fluid through the valve. By selectively opening the valves in opposite bridge legs in the first valve assembly 48, hydraulic fluid can be applied to one cylinder chamber 46 or 47 and drained from the other chamber 47 or 46. In particular, opening valves 51 and 53 supplies pressurized hydraulic fluid from the supply line 36 to the rod chamber 46 to retract the first piston rod 45 into the lift cylinder 16, thereby lowering the boom 13 toward the chassis 12. Similarly, opening valves 52 and ~~52~~54 supplies pressurized fluid to the head chamber 47 to extend the piston rod 45 from the lift cylinder 16 and raise the boom 13. It should be understood that the present invention can be used with hydraulic circuits having other types of electrohydraulic valve assemblies.

Replace paragraph [0029] with the following paragraph:

The controller 70 also receives input signals from three sensors 74, 75 and 76 in Figure 1. A lift sensor 74 is mounted to the lift cylinder 16 to sense the distance “a” that the rod extends from the lift cylinder 16. Because distance “a” is trigonometrically related to the boom lift angle θ, this distance can be used to calculate that angle. A boom extension sensor 75 measures the distance that the first section 14 projects from the second boom section 15 and thus indicates the overall boom length L. A load carrier sensor 76 attached to the load carrier cylinder 24 produces an electrical signal ~~demoting~~ denoting the distance “b” that the rod 68 extends from that cylinder. The extension distance “b” is trigonometrically related to the angular position of the load carrier 18 with respect to the boom 13 and can be used to derive that position. Alternatively, rotary encoders can be employed to measure directly the boom lift angle θ and the load carrier angular position.

Replace paragraph [0048] with the following paragraph:

The third summing node 128 combines the Position Error and the Velocity Error into a Total Error value that is applied via line 129 to an error limiter 160. The error limiter 160 prevents minute values of the Total Error from causing change of the load carrier position, especially when the telehandler operator is not manipulating the joysticks to move the boom or load carrier. This error limiting function precludes the load carrier ~~between~~ from toggling between two positions on opposite sides of the setpoint as could occur if the control function 100 responded to small error values. As a consequence, in order for the control function to alter the Load Carrier Position, the calculated error must exceed a predefined dead band

range. In other words the absolute value of the load carrier error must exceed a designated threshold. That dead band range changes depending upon whether the telehandler operator is designating motion of the boom or load carrier.